

REMARKS

Amendments

Support for new claims 17-19 can be found, for example, at Table 1. See also *In re Wertheim*, 541 F.2d 257, 263, 191USPQ 90 (CCPA 1976). No new matter has been added.

The Rejections Under 35 U.S.C. §102 and §103

Mercaldi does not teach or suggest a solvent mixture comprising at least two solvents selected from ethylene glycol, propylene glycol, ethanol and glycerol. He suggests an etching composition which includes a polyhydric alcohol in combination with two inorganic acids (e.g., HNO₃ and hydrofluoric acid). However, the claims herein require use of a mixture of specific solvents. Mercaldi merely states very generally etching compositions can be formulated to contain polyhydric alcohols, but in no way does the reference teach a specific solvent mixture. At col. 3, line 54 to col. 4, line 2 is a generic list of polyhydric alcohols which can be added to the compositions of Mercaldi. Such a general description does not anticipate the methods claimed herein (*In re Petering*, 301 F.2d 676 (C.C.P.A. 1962)). The Mercaldi reference provides no specific embodiment or specific statement to suggest a mixture of solvents meeting the recitations of applicants claimed invention. A mere broad generic disclosure without any specific direction as to the specific element necessary to provide anticipation is not an anticipatory disclosure. In other words, such a broad generic disclosure does not "describe" an embodiment therein in accordance with 35 U.S.C. '102 (*In re Kollman et al*, 201 U.S.P.Q. 193 (C.C.P.A. 1979)) and it does not render the claims obvious either since there is no motivation to use a mixture of at least two solvents selected from ethylene glycol, propylene glycol, ethanol, and glycerol.

Mercaldi is especially remote from new claims 17-19 which exclude mixtures of acids. Mercaldi requires two or more acids (see column 4, lines 3-10). The addition of HNO₃, as in Mercaldi, would reduce the selectivity of etching on doped silicon oxide layers.

Furthermore, Mercaldi does not teach compositions having 1-20 % by weight water. In fact, the compositions of Mercaldi are all non-water based compositions. Mercaldi makes no mention of adding water as a solvent.

Deckert et al. teaches a special etching solution (employing only single solvents) for the etching of silicon nitride layers on silicon oxide, not for etching doped silicon oxide layers.

The Examiner's calculations on page 4 of the Office Action show a HF content that is less than 5%. The maximum HF content of Deckert is lower than the minimum HF content of applicants' claimed invention. No guidance can be found within Deckert that would motivate a skilled worker to increase the maximum HF content, particularly since Deckert's solutions are for the concurrent etching of silicon oxide and silicon nitride and not for the selective etching of doped silicon layers. These are different functions, presenting different problems and requiring different solutions. Newly added claims 18 and 19 are especially patentable in this regard.

Furthermore, Deckert is absent any specific example or a suggestion of an etching solution having a solvent mixture of any type. There is nothing in Deckert suggesting use of at least two solvents selected from ethylene glycol, propylene glycol, ethanol, and glycerol for this purpose or any other. Nor is there a hint for one skilled in the art to take the extra step of mixing solvents for any reason, especially not to achieve the selectivity and uniformity of etching that is achieved by mixing them per this invention.

Thus, there is no mention, motivation or guidance in '654 to direct one skilled in the art to make the changes necessary to arrive at the present invention.

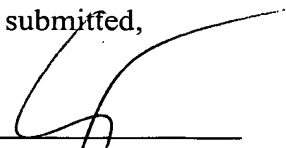
Thus, the 35 U.S.C. §102 and §103 rejections should be withdrawn.

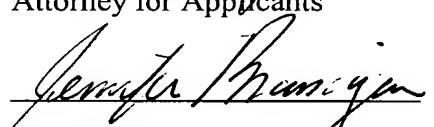
It is submitted that the claims of the application are in condition for allowance. However, should the Examiner have any questions or comments, he is cordially invited to

telephone the undersigned at the number below.

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,



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Filed: **17 June 2004**